

Carcinogenicity Prediction of Schiff Base Ligand in Male Mice

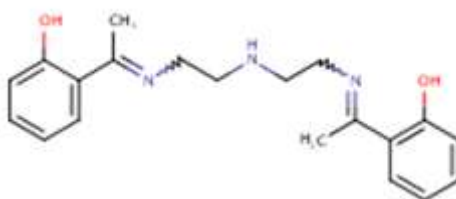
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Abstract—Bioactive Schiff base ligand, 2,2'-[iminobis(ethane-2,1-diylnitriroeth-1-yl-1-ylidene)]diphenol was selected for *in silico* prediction of their carcinogenicity in male mice. The prediction was carried out online software programs ROSC-Pred. Results demonstrate the carcinogenicity of the ligand towards kidney, thyroid gland, stomach and urinary bladder with probability of 61, 63.3, 60.2 and 42.6% respectively.

Keywords— Carcinogenicity, Prediction, mice.

I. INTRODUCTION

Schiff base display interesting pharmacological activities such as antibacterial, antifungal, antimalarial, antimicrobial and anticancer activity (1). Due to the high interest of this compounds; the Schiff base ligand 2,2'-[iminobis(ethane-2,1-diylnitriroeth-1-yl-1-ylidene)]diphenol (Scheme 1) was selected for their toxicity evaluations, among them the carcinogenicity.



Scheme 1

II. METHODS

ROSC-Pred was used for carcinogenicity prediction (2).

III. RESULTS AND DISCUSSION

Results demonstrate the carcinogenicity of the ligand towards kidney, thyroid gland, stomach and urinary bladder with probability of 61, 63.3, 60.2 and 42.6% respectively (Figure 1).

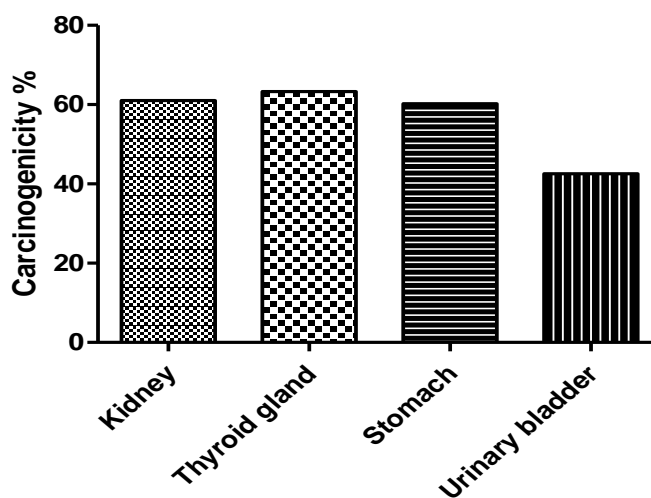


Fig. 1. Carcinogenicity prediction

IV. CONCLUSION

The synthesized Schiff base has potential carcinogenic effect.

REFERENCES

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